Sonar

ClearPulse, CHIRP DownVision and CHIRP Sonar Modules

INNOVATION • QUALITY • TRUST

Raymarine®

CP100 Network Sonar Module with CHIRP DownVision™

Underwater Vision

The CP100 network sonar module brings CHIRP DownVision technology to Raymarine's multifunction displays. CP100's CHIRP DownVision delivers a photo like view of the world beneath your boat, allowing you to image bottom structure with amazing detail and target fish simultaneously.

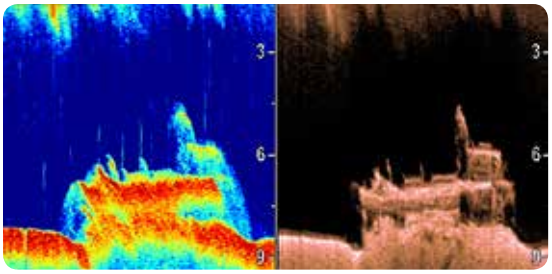
CHIRP Technology

Unlike conventional imaging sonars that transmit a single frequency with each pulse, the CP100 uses CHIRP technology to transmit across a wide spectrum of sonar frequencies with each pulse – the result is much higher resolution, photo-like sonar images.

Key features:

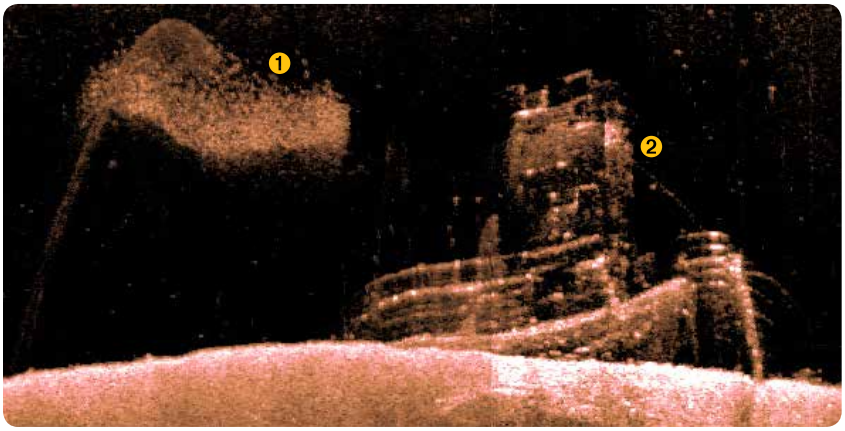
- Photo-like imagery of bottom structure using Raymarine's CHIRP DownVision technology.
- Dual Channel CHIRP sonar; view high resolution CHIRP DownVision structure imagery and target fish with CHIRP sonar simultaneously.
- Network the CP100 with Raymarine's latest generation multifunction displays. From the compact a Series to the flagship gS Series the CP100 brings underwater vision in resolutions up to 1280 x 800 pixels.
- Perfectly matched dual beam CHIRP transducers available in transom mount, plastic thru-hull and bronze thru-hull configurations.

The CP100 CHIRP DownVision with its photorealistic images identifies fish and underwater structures with amazing clarity



CHIRP DownVision with its photorealistic images identifies fish and underwater structures with amazing clarity

❶ School of fish
❷ Bait fish
❸ Rocks
❹ Cave



❶ School of fish ❷ Sunken vessel

CP100 Applications

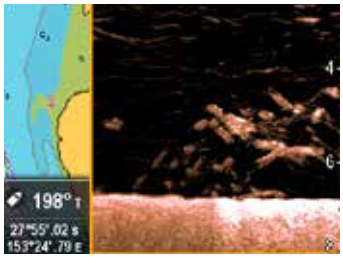
Freshwater Fishing
The CP100 is ideal sonar solution for freshwater anglers. Combined with Raymarine e Series HybridTouch displays, the CP100 lets fresh anglers create a multi display network with HybridTouch control. Photo realistic CHIRP DownVision™ easily identifies the habitat of bass and other fresh water species.

Coastal Fishing
With depth performance up to 600ft the CP100 is the perfect choice for coastal and bay fishing. Image wrecks with unmatched fidelity and use the second CHIRP channel to target bait and predators.

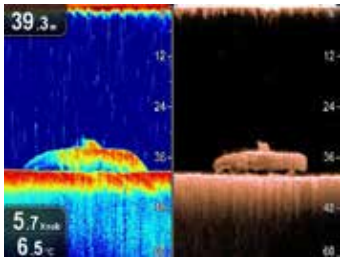
Award Winning Technology

The CP100 incorporates the same CHIRP sonar technology as the 2013 NMMA Innovation award winning Dragonfly Sonar/GPS

The award-winning Dragonfly Sonar/GPS MFD



Turtles seen swimming off Australia



Submarine wreck

a68 and a78 MFDs with CHIRP DownVision Built-In

Get the same CHIRP technology as the CP100 module built-in, with the a68 and a78 multifunction displays with CHIRP DownVision. Choose the 5.7" a68 or go wide with the 7" a78. a-Series MFDs are the perfect all-in-one navigation and sonar solution for boaters limited on space, but not willing to give up on performance.

a78 MFD with CHIRP DownVision

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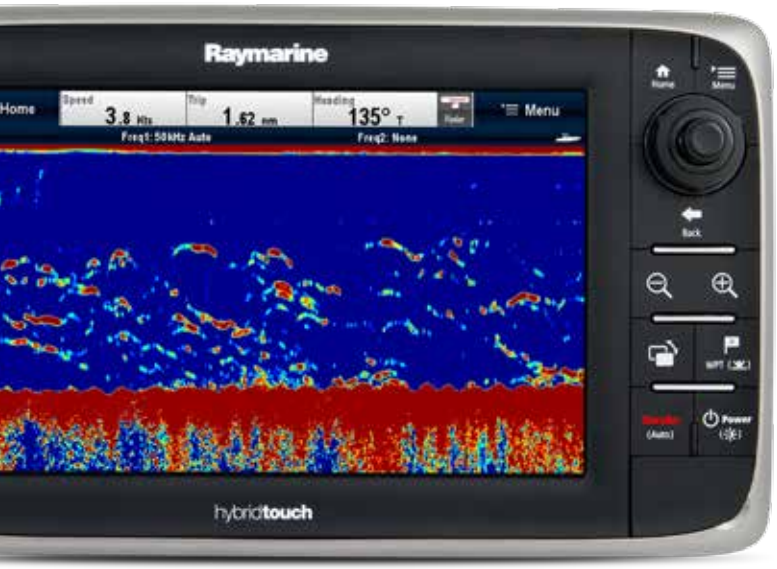
CP300 and CP450C Network Sonar Modules



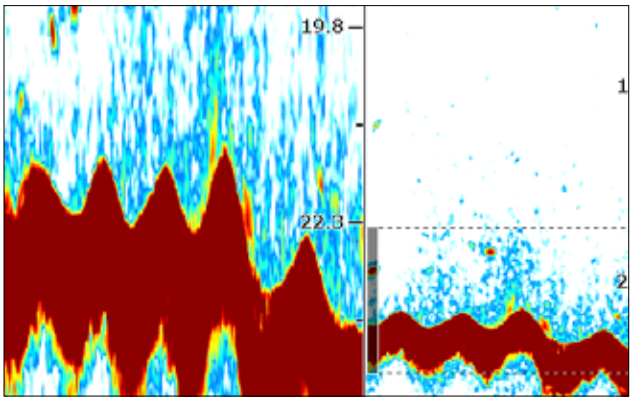
CP300 Digital Sonar Module

The CP300 Digital sonar module is for anglers looking to step up to more power and offshore performance. Using Raymarine's exclusive digital ClearPulse sonar processing technology the CP300 intelligently adjust every sonar variable automatically and eliminates unwanted noise from the display. The result is accurate, easy to interpret fish targeting and bottom imaging.

- Ideal for anglers looking for enhanced performance above and beyond the built-in sonar option on Raymarine multifunction displays.
- Dual frequency sonar. 200kHz for coastal fishing and 50kHz for offshore
- Automatically adjusts and adapts for a clear image of fish and bottom structure in depths up to 5000'
- Compatible with a broad range of 600 and 1000 watt transducers. Including in-hull, transom mount, and thru-hull option
- Compatible with legacy Raymarine E-Series Classic, C-Series Widescreen and E-Series Widescreen displays

CP300 Applications

Coastal and Offshore Fishing
With up to 1000 watts of output power the CP300 is the ideal sonar for coastal angler that make the occasional foray offshore.



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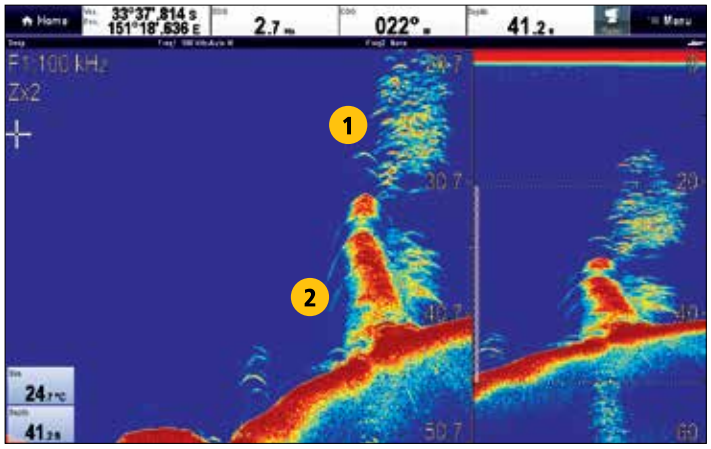
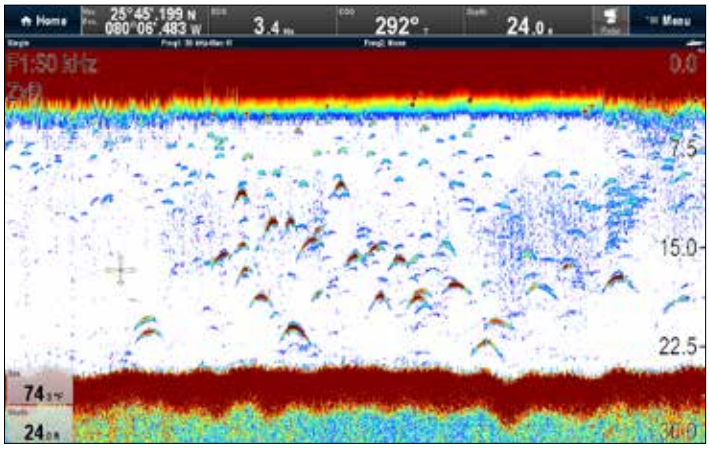
CP450C High Performance CHIRP Sonar Module

Built for the offshore angler that demands the best, the CP450C with CHIRP sonar technology goes beyond high definition sonar and delivers increased resolution, enhanced fish targeting and deeper depth performance. Easily identify and separate baitfish from predators, using Raymarine's exclusive CHRIP sonar processing.

- TruZoom™ mode for a precise magnified view of fish targets, bottom structure and baitfish without any loss of resolution seen with traditional sonar.
- Fast Pulse Rate with 80 pulses a second and enhanced shallow water and high-speed operation.
- Network compatible with all the latest generation of Raymarine multifunction displays.
- Dual CHIRP channels – 2 independently adjustable channels (two sonars in one). Each channel can be customized to specific frequency bands along with independent manual and auto adjustment settings.
- Low, medium and high frequencies for excellent performance at all depths – supports CHIRP transmissions from 25 to 255kHz with additional mid-band frequency support in the 75 to 130 kHz range.



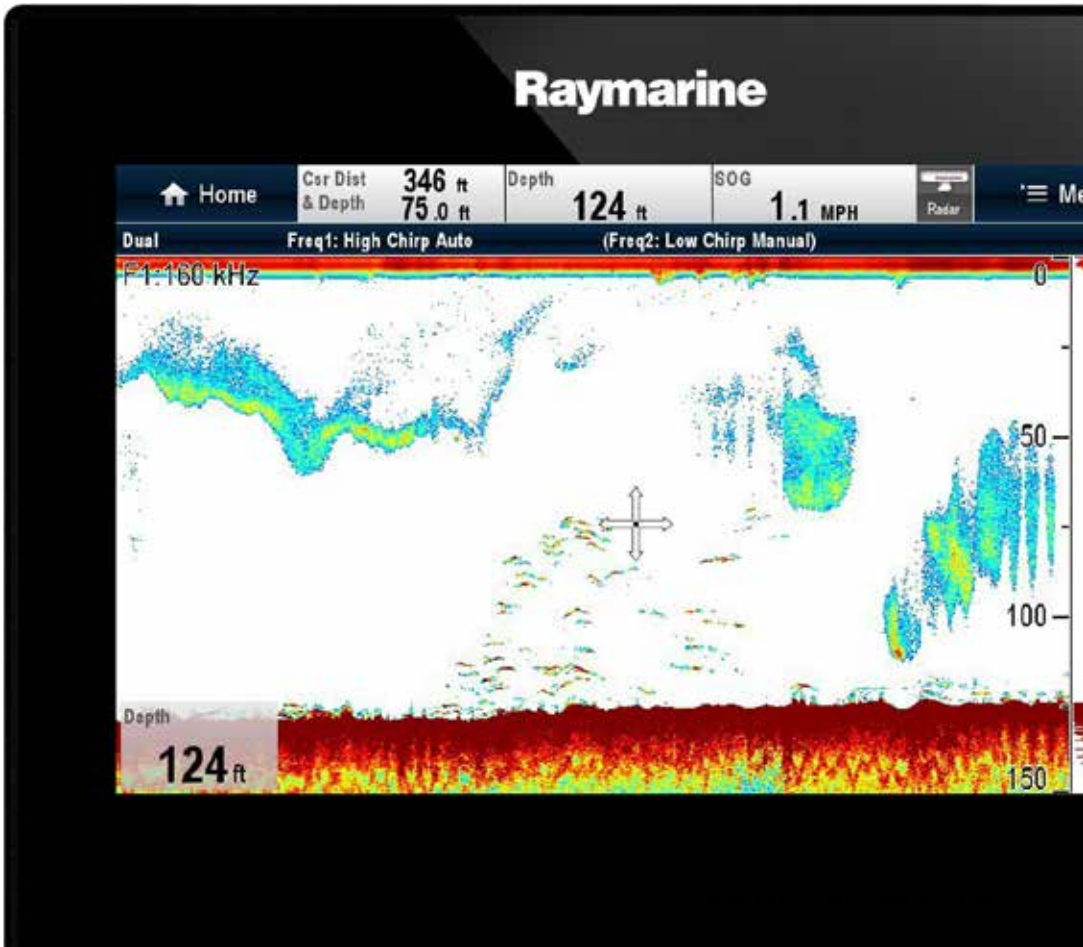


Clearly identify bait fish (1) from their predators (2) even when packed tightly together, or stacked vertically.

CP450C Applications

Offshore Fishing

With depth resolution up to 10,000 feet the CP450C is the choice of competitive offshore anglers. From tuna to billfish the CP450C delivers incredible imagery and underwater intelligence.



gS125 Glass Bridge MFD and CP450C imaging tuna and bait fish

Sonar Features Comparison

	Dragonfly	CP100	a68/a78	a67/a77/c97/c127 e97/e127	CP300	CP450
Depth Performance (max)*	600ft (180m)	600ft (180m)	600ft (180m)	3000ft (900m)	5000ft (1500m)	10,000ft (3000m)
CHIRP Technology	•	•	•			•
CHIRP DownVision™	•	•	•			
ClearPulse Sonar Built-in				•		
Network Compatible		•	•	•	•	•
CHIRP Channels	2	2	2			
50 kHz Sonar Channel				•	•	•
200 kHz Sonar Channel				•	•	•
Operating Voltage	12 Volt	12/24 Volt	12 Volt	Varies see MFD specification	12/24 Volt	12/24 Volt
Compatible with E Series Classic**					•	
Compatible with E Series Widescreen**					•	
Compatible with C Series Widescreen**					•	
Compatible with G Series**					•	

** Actual depth performance may vary. Transducer placement, water temperature and salinity can affect maximum sonar depth performance ** Legacy products*

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Transducer Options

Choosing the right transducer for your sonar depends on; type of boat, hull design and usage. Raymarine offers a broad range of high quality transducers to fit every hull type and maximize sonar performance.

Transom Mount

Engineered for outboard boats, transom mount transducers are easy to install and offer excellent high-speed performance, thanks to their hydrodynamic design.

P58	Transom transducer with depth, speed and temperature

Through-Hull

Larger high performance transducers offer more ceramic elements, increased performance, and support for the CP300's 1kW output power. The supplied fairing block is cut to accommodate the hull's dead rise and provides excellent performance at speed.

B744V	600Watt with depth, speed and temperature
B258	High Performance 1kW thru-hull

In-Hull

In-Hull transducers offer ease of installation since transducer does not penetrate the hull. Good for high-speed applications, however serious anglers looking for maximum performance should consider a high performance in hull transducer or thru-hull transducer.

P79	600Watt In Hull
M260	1kW In-Hull

Tilted Element Low Profile Thru-Hull

Low profile Thru-Hull transducers are available in 0°, 12° and 20° tilt angles to accommodate various hull dead rises. These transducers mount flush to hull and offer excellent high-speed performance. Available in 600W or high performance 1kW capable configurations

B60	600W low profile Thru-hull
B164	1kW low profile Thr-Hull

CHIRP DownVision

Specialized dual-channel CHIRP transducers that incorporate a conical beam for fish targeting and an ultra wide fan shaped beam for photo-like DownVision sonar images.

CHIRP DownVision transducers are available in both transom and thru-hull configurations

CPT100	Transom Mount
CPT110	Thru-hull with fairing block
CPT120	Bronze thru-hull with fairing block

CP450C CHIRP Transducers

Taking sonar to whole new level, CP450C CHIRP transducers offer options for Low, Medium and High frequency CHIRP sonar bands. Choose the High frequency band for maximum resolution and target separation and accurately identify structures and track bottom contours deeper and at faster speeds using Low and Medium bands. High performance CHIRP transducers are available in Transom, In-Hull, Thru-Hull and Low Profile transducer pairs.

M265	CHIRP In-Hull Transducer
B75	Low Profile CHIRP Thru-Hull transducer pair
B265	CHIRP Thru-Hull

For a complete listing of transducer options please visit www.raymarine.com/transducers/

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SPECIFICATIONS

CP100
Sonar Type: CHIRP
Nominal supply voltage: 12 and 24 VDC systems
Operating voltage range: 10.2 to 32.0v
Power consumption at full power: 3 watts
Operating temperature range: 0°C to +55°C
Storage temperature range: -30°C to +70°C
Waterproofing standard: IPX6 and IPX7
Connections: Power (power cable), transducer (9 pin connector), and Raynet network connector
Transducer info: Max Depth DownVision – 600 ft., Traditional – 600 ft. Center Frequency DownVision 350 kHz, Traditional 200 kHz

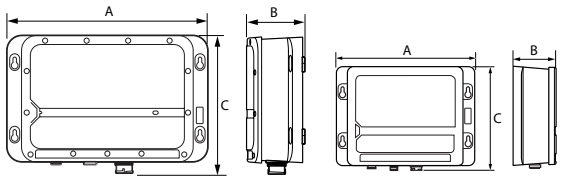
CP300
Sonar Type: Digital
Nominal supply voltage: 12 and 24 VDC systems
Operating voltage range: 10.2 to 32.0v
Power consumption at full power: 45 watts
Operating temperature range: 0°C to +55°C
Storage temperature range: -30°C to +70°C
Waterproofing standard: IPX6 and IPX7
Connections: Power (3 pin standard), transducer (7 pin connector), and Raynet network connector
Maximum Depth: 5000 feet, dependent on transducer used, water salinity and turbidity

CP450C
Sonar Type: CHIRP
Nominal voltage: 12 and 24V Systems
Absolute voltage range: 10.2 – 32 V DC
Current consumption: 6.0 A peak
Frequency: 25 to 255 kHz
Nominal power output: 1kW
Operating temperature range: -20 to +50°C
Storage temperature range: -30° to +70°C
Humidity: up to 95%
Waterproofing standard: CFR46 and IPX6
Weights: 3.38lbs (1.54kg)

Note: Specifications subject to change without prior notice.

ORDERING INFORMATION

E70204	CP100 CHIRP DownVision Sonar Module
E70154	CP300 Digital Sonar Module
E102143	CP450C CHIRP Sonar Module
E80270	CPT-100 Transom Mount Transducer
E80271	CPT-120 Bronze Thru-Hull Transducer
E80277	CPT-110 Plastic Thru-Hull Transducer



CP300/CP450C CP100

	Dimensions					
	A		B		C	
CP100	8.85 in	225mm	2.83 in	72mm	6.6 in	168mm
CP300/CP450C	11.77 in	299mm	3.45 in	87.5mm	8.07 in	205mm

Safety Notice
Raymarine products are intended to be used as aids to navigation and must never be used in preference to sound navigational judgement. Their accuracy can be affected by many factors, including environmental conditions, equipment failure or defects, and incorrect installation, handling or use. Only official government charts and notices to mariners contain all the current information needed for safe navigation, and the captain is responsible for their prudent use. It is the user's responsibility to use official government charts, notices to mariners, caution and proper navigational skill when operating any Raymarine product.

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Photography
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FREE WARRANTY UPGRADE FROM 2 YEARS TO 3 YEARS

Raymarine offers a 2 year Limited Warranty (upgradable to 3 years upon product registration) on products installed in vessel use classifications within this brochure, full details of the Global Warranty Policy and how to register your products can be found at **www.raymarine.com/warranty**. If you require local assistance, please contact a Raymarine certified dealer near you, details of which can be found at **www.raymarine.com/dealerlocator**.

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